David B Goldstein

List of Publications by Year
in descending order

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43	758	516710 16	526287 27
papers	citations	h-index	g-index

43	43	43	667
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hybrid Euler/Particle Approach for Continuum/Rarefied Flows. Journal of Spacecraft and Rockets, 1998, 35, 258-265.	1.9	104
2	Hybrid Euler/Direct Simulation Monte Carlo Calculation of Unsteady Slit Flow. Journal of Spacecraft and Rockets, 2000, 37, 753-760.	1.9	71
3	Simulations of a comet impact on the Moon and associated ice deposition in polar cold traps. Icarus, 2011, 215, 1-16.	2.5	55
4	Approach for Modeling Rocket Plume Impingement and Dust Dispersal on the Moon. Journal of Spacecraft and Rockets, 2015, 52, 362-374.	1.9	54
5	A comprehensive numerical simulation of Ioâ€™s sublimation-driven atmosphere. Icarus, 2010, 207, 409-432.	2.5	49
6	Use of an axial nose-tip cavity for delaying ablation onset in hypersonic flow. Journal of Fluid Mechanics, 2005, 528, 297-321.	3.4	37
7	Direct numerical simulations of riblets to constrain the growth of turbulent spots. Journal of Fluid Mechanics, 2011, 668, 267-292.	3.4	37
8	On understanding the physics of the Enceladus south polar plume via numerical simulation. Icarus, 2015, 253, 205-222.	2.5	34
9	A parametric study of Ioâ€™s thermophysical surface properties and subsequent numerical atmospheric simulations based on the best fit parameters. Icarus, 2012, 220, 225-253.	2.5	31
10	Rarefied gas dynamic simulation of transfer and escape in the Plutoâ€“Charon system. Icarus, 2017, 287, 87-102.	2.5	26
11	Multi-wavelength simulations of atmospheric radiation from Io with a 3-D spherical-shell backward Monte Carlo radiative transfer model. Icarus, 2010, 207, 394-408.	2.5	19
12	Three-dimensional simulation of gas and dust in Ioâ€™s Pele plume. Icarus, 2015, 257, 251-274.	2.5	19
13	An Examination of Trapped Bubbles for Viscous Drag Reduction on Submerged Surfaces. Journal of Fluids Engineering, Transactions of the ASME, 2010, 132, .	1.5	17
14	Global sensitivity analysis for DSMC simulations of hypersonic shocks. Journal of Computational Physics, 2013, 246, 184-206.	3.8	17
15	The interaction of Ioâ€™s plumes and sublimation atmosphere. Icarus, 2017, 294, 81-97.	2.5	17
16	Roughness induced transition: A vorticity point of view. Physics of Fluids, 2019, 31, .	4.0	17
17	Lunar Dust Transport Resulting from Single- and Four-Engine Plume Impingement. AIAA Journal, 2016, 54, 1339-1349.	2.6	15
18	Impacting Lunar Prospector in a cold trap to detect water ice. Geophysical Research Letters, 1999, 26, 1653-1656.	4.0	14

#	Article	IF	Citations
19	Evolution of the dust and water ice plume components as observed by the LCROSS visible camera and UVâ€“visible spectrometer. Icarus, 2015, 254, 262-275.	2.5	14
20	Constraining the Enceladus plume using numerical simulation and Cassini data. Icarus, 2017, 281, 357-378.	2.5	14
21	The Evolution of a Spacecraftâ€Generated Lunar Exosphere. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006464.	3.6	13
22	Simulation of Ioâ€™s plumes and Jupiterâ€™s plasma torus. Physics of Fluids, 2019, 31, 077103.	4.0	11
23	Sensitivity Analysis of Direct Simulation Monte Carlo Parameters for Ionizing Hypersonic Flows. Journal of Thermophysics and Heat Transfer, 2018, 32, 90-102.	1.6	10
24	Short-time exosphere evolution following an impulsive vapor release on the Moon. Journal of Geophysical Research, 2001, 106, 32841-32845.	3.3	9
25	Near-field flow structures about subcritical surface roughness. Physics of Fluids, 2014, 26, .	4.0	9
26	Direct Simulation Monte Carlo Shock Simulation of Saturn Entry Probe Conditions. Journal of Thermophysics and Heat Transfer, 2018, 32, 680-690.	1.6	8
27	Simulation of Plasma Interaction with Ioâ€™s Atmosphere. , 2011, , .		5
28	Unsteady flows in Ioâ€™s atmosphere caused by condensation and sublimation during and after eclipse: Numerical study based on a model Boltzmann equation. Icarus, 2012, 221, 658-669.	2.5	5
29	Sensitivity Analysis of DSMC Parameters for Ionizing Hypersonic Flows. , 2015, , .		5
30	Monte Carlo and Navier-Stokes Simulations of Compressible Taylor-Couette Flow. Journal of Thermophysics and Heat Transfer, 2006, 20, 544-551.	1.6	3
31	Influence of ab initio chemistry models on simulations of the Ionian atmosphere. Icarus, 2014, 239, 32-38.	2.5	3
32	Characterizing the hydroxyl observation of the LCROSS UV-visible spectrometer: Modeling of the impact plume. Icarus, 2020, 343, 113626.	2.5	3
33	Effect of pressure gradients on the different stages of roughness induced boundary layer transition. International Journal of Heat and Fluid Flow, 2020, 86, 108688.	2.4	3
34	Lokiâ€”A Lava Lake in Rarefied Circumplanetary Cross Flow. , 2011, , .		2
35	Hybrid dust-tracking method for modeling Io's Tvashtar volcanic plume. Icarus, 2021, 359, 114274.	2.5	2
36	Variations in the canopy shock structures of massive extraterrestrial plumes: Parametric DSMC simulation of 2007 Tvashtar observations. Icarus, 2021, 363, 114431.	2.5	2

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37	Numerical Investigation of Vortex Onset in Supersonic Taylor-Couette Flow. Journal of Thermophysics and Heat Transfer, 2006, 20, 536-543.	1.6	1
38	Ioâ€™s Atmospheric Freeze-out Dynamics in the Presence of a Non-condensable Species. , 2008, , .		1
39	Effects of a gain-based optimal forcing on turbulent channel flow. , 2014, , .		1
40	Modeling of Ionized Gas Flows with a Velocity-space Hybrid Boltzmann Solver. , 2021, , .		1
41	Modeling Ioâ€™s Sublimation-Driven Atmosphere: Gas Dynamics and Radiation Emission. , 2008, , .		0
42	Sensitivity analysis of DSMC parameters for an 11-species air hypersonic flow. AIP Conference Proceedings, 2016, , .	0.4	0
43	Lunar Atmosphere, Effects of Cometary Impacts. , 2017, , 1-7.		0